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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,167	11/26/2001	Clarke V. Greene	100.361US01	9359
34206	7590	10/02/2003	EXAMINER	
FOGG AND ASSOCIATES, LLC P.O. BOX 581339 MINNEAPOLIS, MN 55458-1339			VU, NGOC K	
			ART UNIT	PAPER NUMBER
			2611	8

DATE MAILED: 10/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,167

Applicant(s)

GREENE ET AL.

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31, 38-38 and 40 is/are rejected.
33 40
- 7) ☒ Claim(s) 32 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 31-40 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 31, 33-35 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burroughs et al. (US 2002/144284) in view of Safadi (US 5,892,910).

Regarding claim 31, Unger discloses in figure 1 a method of providing redundancy in a cable modem termination system (CMTS) (103-1...103-N) comprising: passing communications through a combiner (107) to a primary CMTS transceiver (primary CMTS) (paragraph [0022] teaches the CMTS receives data from the various cable modems, and paragraph [0028] teaches the cable modem first communicates with the primary transceiver) during a first operation mode (normal mode of the primary CMTS transceiver); and passing the communications through the combiner to a backup CMTS receiver (the alternate CMTS transceiver) during a second operation mode (failure mode of the primary CMTS transceiver) (the alternate CMTS transceiver acts as backup transceiver in the event of a failure of the primary transceiver; see abstract, paragraphs [0031]-[0034] and [0042]). Burroughs et al. does not disclose the combiner is a directional coupler. However, Safadi teaches in column 8, lines 64-66, that combiner employs directional coupler to attain high isolation for protection from the

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signal inputs (channels) interference. Therefore, it would have been obvious to one of ordinary skill in the art to modify Burroughs et al. by employing directional coupler for the combiner 107 for the purpose of preventing the interference between the transmission signals.

Regarding claim 33, the modified Burroughs et al. teaches in paragraph [0033] the step of testing the back up CMTS transceiver without removing the back up CMTS transceiver from the CMTS.

Regarding claim 34, the modified Burroughs et al. discloses entering the second operation mode upon detecting a failure of the primary CMTS receiver (paragraph [0032]).

Regarding claim 35, the modified Burroughs et al.'s figure 1 discloses a method of operating a cable modem terminal system (CMTS), comprising: communicating with one or more primary CMTS receivers (103-1...103-N) across a primary signal path during a first operation mode (normal operation mode of the primary CMTS transceiver), wherein each primary CMTS receiver has one or more upstream communication ports for communication with subscriber equipment (cable modem) and one or more downstream communication ports for communication with a head end (paragraph [0022]), and wherein a directional coupler (the combiner 107 is replaced with directional coupler, see the rejection of claim 31) is connected between each upstream communication port and the subscriber equipment and between each downstream communication port and the head end; detecting a failure of one of the primary CMTS transceiver (paragraph [0032]); and entering a second operation mode (failure mode) wherein communication with the failed primary CMTS transceiver is routed through a backup CMTS transceiver (alternate CMTS transceiver) through the directional coupler associated with the failed primary CMTS receiver.

Regarding claim 40, the modified Burroughs et al. teaches in paragraph [0033] the step of testing the back up CMTS transceiver without removing the back up CMTS transceiver from the CMTS.

3. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burroughs et al. (US 2002/0144284 A1) in view of Safadi (US 5,892,910) and Parsons (US 3,999,171 A).

Regarding claims 36-38, the combination of Burroughs et al and Safadi references does not disclose amplifying based on the detected signal level to create the signal with near unity gain during the second operation mode. However, Parsons discloses the gain of amplifier is adjusted to maintain the gain of the system at unity based on a control signal (see abstract and col. 2, lines 43-49). It would have been obvious to one of ordinary skill in the art to modify Unger by including adjusting the gain of amplifier at unity based on a control signal to compensate for signal loss.

Allowable Subject Matter

4. Claims ³³32~~33~~ and ⁴⁰39~~40~~ are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 32 and 39⁴⁰ would be allowable because Burroughs et al fails to teach the test of testing the back up CMTS transceiver without disturbing the communication through the primary CMTS transceiver.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 703-306-5976. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

NV
September 21, 2003



Ngoc K. Vu
Patent Examiner